

Rec'd PCT/

25 MAY 2005

Composite Bearing

Patent number: EP0940592
Publication date: 1999-09-08
Inventor: OBARA RIKURO (JP)
Applicant: MINEBEA KK (JP)
Classification:
 - international: F16C21/00
 - european: F16C21/00
Application number: EP19990301563 19990302
Priority number(s): JP19980049113 19980302

Also published as:

US6176620 (B1)
 JP11247850 (A)

Cited documents:

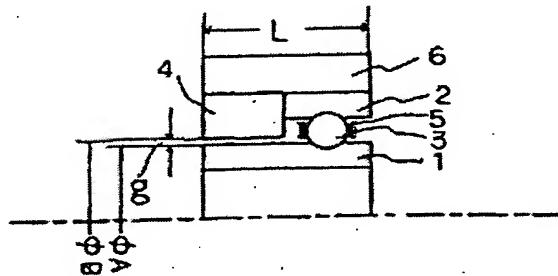
GB1382037
 GB1042549
 FR1464889
 US3301611
 JP10064002

[Report a data error here](#)

Abstract of EP0940592

A composite bearing has an outer ring 2 and an inner ring 1 arranged coaxially with a space between them, and ball grooves in the opposing surfaces of the inner ring and outer ring, with balls 3 which can rotate freely in the grooves. A friction bearing 4 is arranged between the outer ring and inner ring on at least one side of the balls, which is cylindrically-shaped and has, for example, an outer part fixed to an outer ring sleeve 6, and an inner surface providing a bearing part against the inner ring 1, with a gap g having a specified value for restricting the permitted range of inclination of the inner and outer rings.

Fig. 1



Data supplied from the esp@cenet database - Worldwide



(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 940 592 A1

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:
08.09.1999 Bulletin 1999/36

(51) Int. Cl.⁶: F16C 21/00

(21) Application number: 99301563.5

(22) Date of filing: 02.03.1999

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 02.03.1998 JP 4911398

(71) Applicant: MINEBEA CO., LTD.
Kitasaku-gun, Nagano-ken (JP)

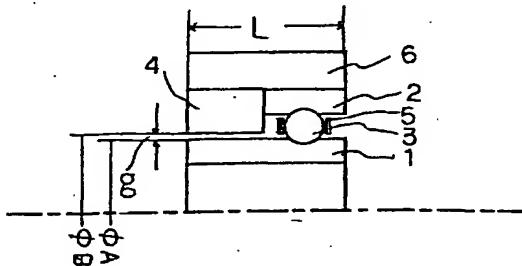
(72) Inventor:
Obara, Rikuro,
c/o Minebea Co.,Ltd.
Miyota-machi, Kitasaku-gun, Nagano-ken (JP)

(74) Representative:
Brunner, Michael John
GILL JENNINGS & EVERY
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

(54) Combined ball bearing and sliding bearing

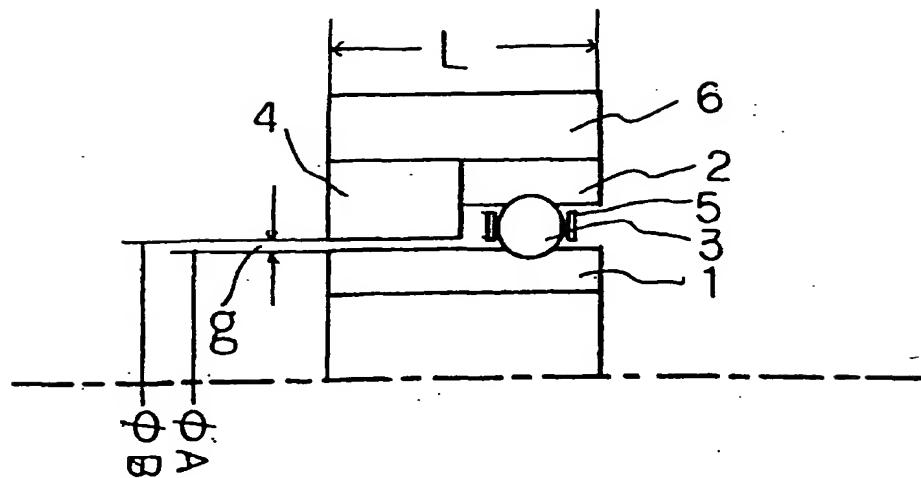
(57) A composite bearing has an outer ring 2 and an inner ring 1 arranged coaxially with a space between them, and ball grooves in the opposing surfaces of the inner ring and outer ring, with balls 3 which can rotate freely in the grooves. A friction bearing 4 is arranged between the outer ring and inner ring on at least one side of the balls, which is cylindrically-shaped and has, for example, an outer part fixed to an outer ring sleeve 6, and an inner surface providing a bearing part against the inner ring 1, with a gap g having a specified value for restricting the permitted range of inclination of the inner and outer rings.

F i g. 1

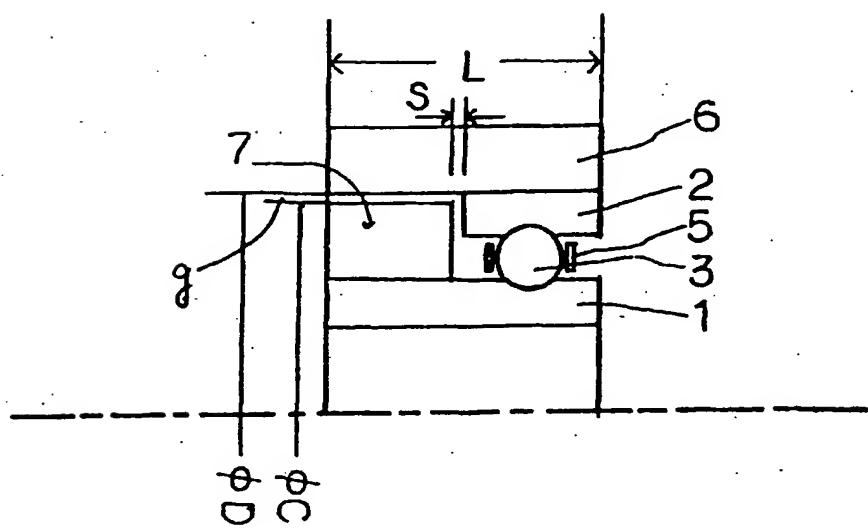


EP 0 940 592 A1

F i g. 1



F i g. 2



F i g . 19
[P R I O R A R T]

